

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



# FISHING CREEK

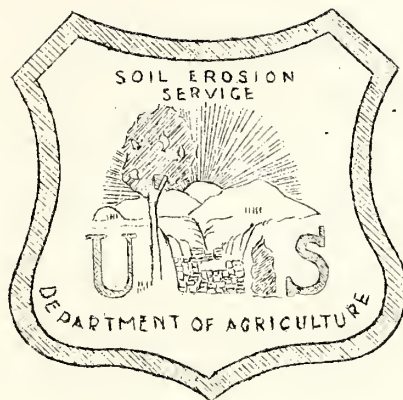
LIBRARY

RECEIVED

AUG 21 1935 ★

U. S. Department of Agriculture

PROJECT 30



ROCK HILL, S.C.

## NEWS

MAY, 1935



KEEP THE GOOD LAND GOOD

### FISHING CREEK NEWS

Dr. T. S. Buie, Regional Director, Spartanburg, S. C.  
Mr. A. F. Ruff, Ass't Regional Director, Rock Hill, S. C.

\*\*\*\*\*

It is with the immediate view of aiding the farmer to preserve and build the usefullness of his land, and the ultimate end of safe-guarding the nation's capital that the Government itself has taken a hand and brought the Soil Erosion Service to our county.

Experts in soils, in agricultural engineering, and in farm management are being placed at the service of land owners in the Fishing Creek Area. This service is free of any cost to any property owner and the Soil Erosion Service is anxious for the farmers of this district to become acquainted with the benefits that they may receive in being so fortunate as to have their farms located in this area.

To secure Soil Erosion aid, merely drop us a line or better still, come to our office and sign a written invitation. Then, upon receipt of this written invitation, your farm will be mapped by our soils men. After which, your farm will be visited by erosion specialists, and every field gone over with you. Recommendations will be made, based upon the soil types, slope of the land, degree of erosion, and your plans for the future. A cooperative agreement will then be drawn up and then, and not until then, Soil Erosion aid may be secured on your farm.

\*\*\*\*\*

Published by The Soil Erosion Service  
U. S. Department of Agriculture  
Rock Hill, South Carolina

Dear Cooperator:

The main reason your farm has not been covered with winter and summer legumes in years past was due to the fact that you were unable to purchase seed for the purpose. Certainly you knew some of the advantages of legumes. If you have received seed from the Soil Erosion Service you signed an agreement to continue to use these crops for five years.

In order to do this in the most economical way, for the Soil Erosion Service will not furnish you the same seed twice, it will be necessary that you save planting seed furnished. Please make your plans sufficiently in advance to harvest first your vetch, then your clovers, etc.

Maybe you will have plenty for your use and a money crop as well.

Twenty-five per cent of your land may be terraced the first year and twenty-five per cent each year later.

The fuller cooperation we get from you in this effort of saving your soil, the better cooperation you get from us. I hope you will take this warning in the spirit it is offered. I am sure you will be fully repaid. I am sure of your cooperation.

Yours very truly,

*A. F. Ruff*

A. F. Ruff  
Assistant Regional Director

"KEEP THE GOOD LAND GOOD"

## EDUCATIONAL

The farmers of upper Carolina originally descended from men of fortitude and ability, and the Soil Erosion Service congratulates itself upon the opportunity to work with them.

This section of South Carolina was settled by Scotch Irish who came from Pennsylvania after Braddock's defeat and the Carolina authorities had made a peace treaty with the Cherokees. They advanced down the Yadkin valley and entered South Carolina via Waxhaw.

It is probably true that the Piedmont section of South Carolina had great appeal for them. It was a beautiful country of hills, forests and plateaus of luscious grasses. These energetic pioneers proceeded to cut timber and clear land to the best advantage of economizing on labor. Surrounded, as they were, by many hostile forces, we can throw a cloak of charity over their mistakes.

Certainly some of the land should never have been cleared for cultivation, but this is after-knowledge. Our job now is to restore it and make it fertile again.

## SOIL LOSS DEMONSTRATION

The Soil Erosion Service is conducting a Soil Loss Demonstration in the Fishing Creek Area.

Our Demonstration is located on U. S. Highway #21, just South of the Roddey Pool.

It consists of five individual plots of 1/100 acre each. The soil type, the slope, and the degree of erosion for each plot is constant.

But by varying the crops, and their rotation we intend to show the variation of Soil Loss due directly to the variation in crops.

One of the plots will be left bare, another sodded to bermuda, these are the two extremes. The other three will be planted in crops common in this vicinity.

"KEEP THE GOOD LAND GOOD"



The purpose of this demonstration is to show that vegetation is an effective means toward curbing erosion.

At the lower end of each plot we have built a box which is designed to let the water pass thru and retain the soil.

A rain guage is placed at the Demonstration.

At present, no "run-off" data will be kept, however, the plots are of standard size and so designed that equipment for securing data may be added later.

#### CONSERVE NATURE'S MEANS OF EROSION CONTROL

Most of the lands of the Piedmont are devoid of topsoil and humus and are utilized in clean culture crops. Such lands have slight ability to absorb and retain moisture, hence the run-off of rainfall is so rapid that a very small percentage soaks in resulting in Erosion and lack of moisture for crops. Terraces are employed to prevent Erosion and keep as much water on the fields as possible. It is necessary to dispose of the surplus water in such a way as to prevent gullying and for this reason controlled waterways and treated terrace outlets are frequently used. In many cases it is necessary to utilize vegetated areas for final disposal of the water from both waterways and terrace outlets. These vegetated areas are usually covered with honeysuckle or other vines and bushes, and in some cases trees have been planted where there was not sufficient vegetation.

It is sincerely hoped that farmers in this area will not destroy these vegetated areas without consulting some one of the Engineering staff. To do so may result in the starting of gullies that would be very destructive to the land.

There are many fields in which water control has not been planned and many others which are planned but no work done on them. To destroy honeysuckle patches and thickets would probably greatly add to the difficulty of water control on such fields. We earnestly solicit your support and cooperation.

### DID YOU KNOW

That it is estimated that the Mississippi river carries over 1,000,000 tons of sediment into the Gulf of Mexico each day, or over 400,000,000 tons per year.

That Bermuda grass does not spread by seed as is often supposed but spreads only by roots.

That livestock must not graze on areas set to kudzu until it covers the ground, and grazing then must be done at intervals or the kudzu will be destroyed.

That Davidson and Cecil are about the only soils of the Piedmont that are suitable for the growing of alfalfa.

That within the boundaries of the United States 35,000,000 acres of valuable land has been abandoned, that 100,000,000 acres have been largely stripped of topsoil, and that 175,000,000 acres will be lost within the next generation unless present methods of erosion control are not vastly improved.

That frequently the total costs of reforestation are held down to \$4 to \$5 an acre.

That within the Fishing Creek Area 16 different types of soil have been identified by the Soils Department.

That the policy of the Soil Erosion Service is to turn the water away from road banks and ditches. Whenever so doing is impractical, outlets are constructed to prevent washing.

That over 40,000 acres of the land in the Fishing Creek Area has had an Erosion Survey made on it by the Soils Experts.

That more soil went down the Mississippi river last year from the fields of 30 states of this Union than was excavated in the construction of the Panama Canal.

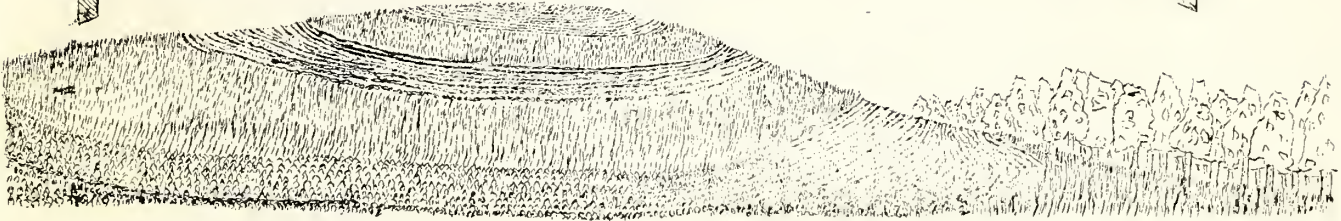
That after soil has been eroded it takes from approximately 400 to 1,000 years to build a single inch of virgin topsoil.

That Mussolini says "Reclaim the land, and with the land the man, and with the man the race."

That North Carolina loses annually \$66,000,000 of plant content from its soils by allowing its farm lands to wash away.



# FARM MANAGEMENT



## SEED SAVING CONTEST

The Farm Management Department is at present working on plans for conducting a seed saving contest among the cooperators in the Fishing Creek Area.

The plans at present include the saving of lespedeza seed for this fall and the saving of vetch and Austrian winter

peas next spring.

The purpose of the contest is to encourage the farmers to save their own seed and to be in a better position to carry on soil building program.

This contest will be announced officially in the near future.

## AGREEMENTS

The Farm Management Department has begun to write agreements again after several weeks of special work in assisting the cooperators in lining up their farm work according to the plans agreed upon. In making plans on new farms we are especially anxious to map out more tractor work for the summer terracing.

If you have such fields on your farm it would be well for you to

notify one of the contact men of this fact and he will be glad to get in touch with you and, if possible, make agreement at an early date.

Only 1/3 of the farmers in the area have been contracted so far and if we have not yet visited your farm just remember that you are one of the sixty-six and two thirds percent which we have not been able to reach.

## CONTROLLING GULLIES WITH KUDZU

Kudzu is a Japanese plant that is fast becoming the friend of the farmer in the Piedmont section. We have at last awakened to the fact that our land is washing

away and that something must be done to save that is left. This plant is a quick grower and thrives even in the worst of soils; spreading and checking erosion as it

goes, while at the same time enriching the soil.

Kudzu is a perennial forage plant which will produce large yields of hay, which is well adapted to grazing the livestock, and which will produce high yields when other crops fail due to drought. In either the green or cured state it is readily eaten by livestock.

In feed value kudzu compares favorably with other hay crops. In both the green and cured state the feeding value of kudzu is slightly higher than that of alfalfa.

The crop of kudzu should be well established before mowing begins. It should be allowed to grow at least two full seasons and in case the soil is very poor three seasons before it will be advisable to begin mowing.

One of the chief objections to kudzu in this section is the prevailing idea that this crop is a pest and if allowed to become established in cultivated fields it will be impossible to eradicate it; an idea absolutely unfounded. For instance, in Auburn, Alabama, kudzu was allowed to remain on a field for twenty-five years and gave no trouble in cultivating adjoining fields. The field was plowed under a few years ago and the kudzu plants that came up did not seriously interfere with the cultivation of corn. Experiments indicate close grazing followed by plowing will eradicate kudzu.

Our Fishing Creek Project has this year set out 140,000 two-year kudzu crowns in some of the badly eroded gullies and the majority of these are living. Within the next year we hope to plant several times the number planted.

#### RECOMMENDATIONS FOR PLANTING SUDAN GRASS AND SORGHUM

The Soil Erosion Service is allotting to cooperators a limited amount of these crops to be planted largely on newly constructed terrace ridges for the purpose of stabilizing the newly made terraces, and of course, these crops will be a source of good hay for farm needs.

##### Sudan Grass

Sudan grass should be broadcast at the rate of 40 pounds per acre and covered with a drag harrow or disc. The best time for planting Sudan is anytime after May first or about cotton planting time. One to three cuttings may be secured if planted reasonably early. Sudan grass should be harvested about the time it begins to head out. Sudan grass should be fertilized if possible with at least 200 pounds of good fertilizer per acre and it will respond readily to a top dresser of nitrate of soda or sulphate of ammonia applied after the plants have started to grow.

##### Sorghum

Sorghum should be planted about cotton planting time or about the time of planting Sudan, broadcasting at the rate of 50 to 60 pounds per acre and using about the same fertilizer as for Sudan. These crops, if planted on poor land will make very poor growth unless fertilized.



### MANAGEMENT OF WOODLAND

On most farms the woodland is not considered of any value except as a source of fire wood for the owner. Under a simple plan of management the woodland can be made to bring in its share of the farm income.

In cutting fire wood the general practice is to cut everything in a stand as the chopper came to it, thus leaving the area bare and in a state for erosion to start.

The method that should be followed is one where the diseased, deformed and poorest specimens are taken out for fire wood leaving the better trees to grow into saw timber or some valuable wood product.

The annual cut should be limited to an area large enough to supply the farm with fire wood with a small surplus for sale.

Any mature trees should be cut for timber, where just a few logs are taken out each year, they probably could be hauled to some nearby mill for manu-

facturing into lumber.

When possible several farmers in a community by pooling their logs might support a small community mill, thus giving work to home labor and supporting a home industry.

The woodlot should be divided into blocks for convenient working. The blocks should be large enough that one would be worked each year, and when they have all been worked over, cutting can be started on the first again.

With the expansion of the paper industry in the South, there will be a good chance for additional farm income for the sale of pulp wood.

Any areas on the farm that are too steep for cultivation or badly eroded should be planted to trees. These plantings should be made of the species which the farmer thinks he will need most.

Keep fire out of the woods, use good cutting practices, and the woodlot will pay its way.



## FOREST FIRE PREVENTED

Responding to a call from the Land Brothers of York, S. C., the Soil Erosion Service sent a crew of foresters and quickly extinguished a fire that might have been York County's most serious forest fire in years. To quote Mr. Land, "It was not a very large area that was burned, but these woods connect around 200 acres of wood land which would surely have burned unless we had had help."

It is deplorable that forest fires, woods fires, or grass fires should be started through thoughtlessness or carelessness. The Government is very properly expending huge sums of money in reforestation work and in soil conservation and

yet a careful observer in riding over the Carolinas will see on all sides ruthless burning. There are in some states laws prohibiting the careless burning and providing for punishment to those who maliciously or carelessly start a fire. The sad part of the burning program in the South is that ignorant tenants burn to save the slight additional labor necessary to incorporate the humus burn into the soil. It is hoped that the public will cooperate with the Government in its effort to stop these small fires which often develop into large fires, and the Soil Erosion Service stands ready at all times to respond to a call for help in prevention of fire in fields or in woods.

## KEEP STEEP SLOPES IN TREES

When the first white settlers came to this section, the land was covered with trees and shrubs giving it maximum protection from eroding action of falling water.

The first farmers with plenty of land available worked fields for a few years and then when it ceased to produce its best, they cleared more as this clearing process went on they finally started clearing land that was too steep to stay put after hard rains.

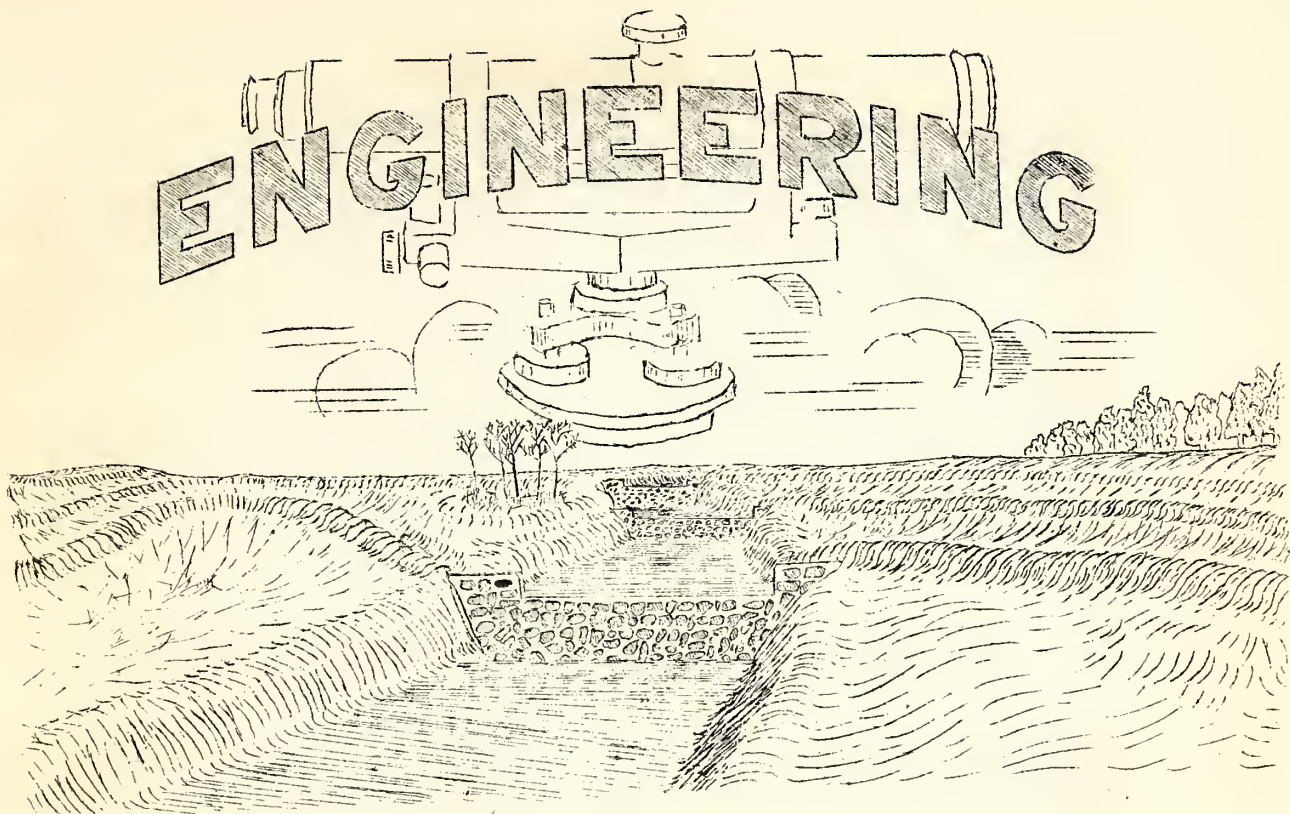
These steep slopes should never have been cleared as forests hold the water and let it down to lower levels by easy stages, and by this retarding process reduce its eroding power.

on the cleared land below.

Now the farmers are going to have to do an about face and put these steep slopes back in trees or some other water and soil-holding vegetation.

One of the rules or guiding principles of the Soil Erosion Service is that all "D" slopes shall be put into trees and thus taken out of cultivation.

Mr. Farmer don't clear any land especially the steeper slopes, and on the steep slopes that are now clear, get them into some permanent vegetation. You will then have made a start toward stopping the steady march of your farm to the sea.



### FARM ROADS

Farm roads have often been placed in fields throughout the area at the most advantageous points connecting one place with another without consideration of the terrace system, causing serious drainage problems. Some of our largest gullies have been formed by these roads having too much fall. In planning new terrace systems for such fields, our engineers run into many difficulties.

In many cases these roads are going to have to be relocated so that they will either follow along the contour lines of the field or cross at the dividing line of the terraces. At the dividing line

in a terrace no channel is required and if the road should tear down the terrace ridge or fill up the channel, no break would occur for the water will be flowing away from the road on both sides.

By relocating these roads cheaper and more efficient terraces can be built, few drainage ditches will be necessary, and the farmer has longer rows to cultivate.

When old roads are crossed by our terraces, the engineer will gladly locate new roads that will fit into the drainage system.



## DIVERSION DITCHES

Within the Fishing Creek Area there are many instances where erosion is caused by ineffective drainage of water coming from woods and roads. Water coming into the fields from these outside sources cause considerable washing. In most cases no steps have been taken to eliminate this difficulty but there are instances where the farmer has built drainage ditches to care for this water but the fall is often too great and gullies have

been started.

In cases of this nature, notify the engineer and lines for drainage will be run. It is best to have these lines run before the terraces are planned so that you will have a coordinate system of water control on your farm.

Whenever you have a problem of water disposal, be sure to notify the engineer.

## WHY THE TERRACING ENGINEERS DESIGN THE TERRACING SYSTEM AS THEY DO

In the past it has been the general policy to both farmers and Engineers to empty the water from terraces into roads and on property lines. Everyone is just beginning to realize the damage that such a system is doing to many farms.

This is one reason farmers everywhere have been complaining about excessive taxes. They cannot understand why taxes keep getting higher. A portion of the taxes from each farm is used for building and maintaining roads.

The water from the old system of terracing drains into the roads and in many cases is slowly washing gullies, where there should only be a small ditch. Gradually these gullies get deeper and wider and soon the road will become impassable. The Highway Department

will then be forced to build a new road. Years pass and soon this abandoned road becomes a gully as deep as twenty feet. A gully this deep is a menace to any farmer and it must be stopped. It is readily seen then that water from fields should not be emptied into roads. If this practise is stopped our roads will not erode and as a consequence our taxes will not be needed to build new roads to replace the ones washed away.

It has also been a general practise to design terraces with too much fall and to empty water on property lines. This will cause two things. A gully will be formed along the property line or the water will roll over the adjoining farm and eventually ruin the field either by gullying or by depositing silt in the bottom lands. This practise surely is not correct.

The Soil Erosion Service is designing

"KEEP THE GOOD LAND GOOD"

and constructing a terracing system which will keep the soil and water on the farm. All terrace systems are designed to carry the water slowly to either a natural vegetated outlet such as woods or to a natural drain.

A vegetated waterway will be constructed in this natural drain to control the water until it reaches a place where nature will control it.

### WHY SUCH WIDE WATERWAYS

While looking at some of the waterways being built by the Soil Erosion Service the question would naturally enter your mind, "Why are they so wide?" Doubtless many of you have asked that same question and we would like to explain our reasons for the wide shallow waterways.

The erosive power of water depends largely on its speed so our first consideration is to reduce the speed. This is accomplished by spreading the water out over a wider area. If you will observe one of these wide shallow waterways after a good rain, you will notice a thin sheet of water going down it instead of the same amount of water being concentrated into a narrow deep ditch. By placing level boards at intervals along the bottom of such channels, the water is kept spread out and made to flow uniformly. Behind these boards is placed a strip of Bermuda sod which serves a double purpose. -- It slows the water and holds the soil in place at the same time, thereby reducing the cutting, or eroding effect of the water.

Another advantage of the wide shallow type is the fact that it may be mowed at regular intervals, serving as a hay strip and paying for itself in yearly crops. In case no hay crop is desired it may be mowed to keep it swept out.

When the slope of the waterways is very nearly level, the width allows the use

of drag pans and plows to keep it free of too much silt.

Again from our point of view this type is much cheaper and easier to build as it may be cut with a terracing machine, thereby allowing us to spread our work out faster and reach more farms. When the farmer has use of a tractor, this type of waterway may be constructed just as we are building them.

The size is based on a 10 year period of rainfall and therefore the maximum amount of water these ditches will carry will probably come only once every 10 years. This maximum has to be figured since we are trying to control water not for one year but permanently.

The actual width of land required for the waterway is actually less than that used in cutting the waterway. After they are constructed the fields may be cultivated right up to the water channel itself.

In summarizing we may state that our chief reasons for building wide shallow waterways are:-

1. Reduce speed of water.
2. Afford crop of hay.
3. Makes maintenance.
4. Cheaper to build.
5. Makes for permanent control of water.

## ARE YOU DOING YOUR PART?

Every farmer who has been fortunate enough to have terraces built by the Soil Erosion Service should feel that he has something valuable accomplished that otherwise would have been impractical in most cases, and very expensive had he undertaken to build an adequate and correct system of terracing.

On the other hand, the Service cannot afford to make a completely finished job of the terraces due to low, washed places and limited turning space at the ends. This is the point where the farmer is expected to do his part in affecting the desired results in the great undertaking of controlling and disposing of the run-off water from his field.

It is agreed that "a chain is no stronger than its weakest link" and it is equally true to say that a terrace is no stronger than its weakest point. For this reason, the weak points must be reinforced by means of drag pan work which is to be done by the farmer. The Service sends men in to check the terraces and to stake the points which need attention.

In some cases it is found to be more economical not to pull the back side of the terraces and equally good results can be expected provided the farmer is interested enough to throw

several furrows against the back side with a large turnplow or with a terracing plow furnished by the Service.

Immediately after the terrace is completed by the tractor, the farmer should see that the back side is plowed and the entire terrace harrowed. This done, the checking crew is sent in as soon as possible to stake the low places in the ridge, the high places in the channel, and the outlets. Every effort should be made to begin drag pan work immediately after checking has been started. Information will gladly be furnished at this time regarding drag pan work. Failure to cooperate in this respect is liable to result in serious damage to both fields and terraces in case of a heavy rainfall.

Is it not to your interest to see that your terraces are completed so that you may expect the best results?

This task of controlling erosion is a great undertaking. This Service alone cannot be expected to check this menace. It is only through your whole-hearted cooperation and interest in your farm that the hope of victory can be realized.

Your degree of interest will be shown by your extent of cooperation.

## ATTENTION COOPERATORS

Any one having equipment such as drag pans, plows, terracers, etc., please use as soon as possible and notify us or bring in the equipment when you have finished.

Our equipment is limited and

when one cooperator is slow about using or negligent in either returning or notifying us, it causes unnecessary delay and inconvenience in the progress of your fellow-cooperators and us.



# SOILS

## SOILS AND SOME OF THEIR ADAPTATIONS

Starting with this publication it is going to be the aim of the Soils Department to present some of the basic facts about the soils found in the Fishing Creek Area. There will be a brief discussion concerning each soil series and the different types found in this area. We will also discuss the crops and cultural methods that each type is best adapted to in this locality. It is hoped that the landowner will pay particular attention to these discussions of the various soils, try to become familiar with them and put some of the methods suggested into practice.

The first soil type which will be discussed is the Cecil series which comprises between 60 and 75 per cent of the Fishing Creek Area and a large portion of the Piedmont section. Under the Cecil series we will take up the various types found in this Area. At the beginning of the discussion of each type of soil you will notice a symbol in parenthesis. This same symbol you will find on your map designating that particular soil type.

### Cecil Soils

The Cecil soils include one group of soils having a red subsoil. The surface soils vary from gray sandy loam to red or brown clay loams. The Cecil soils are derived from granites, gneisses and related rocks.

These types are well drained

and vary in topography from gently rolling to rolling and hilly topography. This group of soils makes up a fairly large portion of the Piedmont section of the State, and there are three main types as to texture which are described below.

### Cecil Sandy Loam

(Symbol CS) This is locally known as gray land and in cultivated fields has a yellowish gray to light brown sandy loam, 6 to 8 inches deep. This grades into a sub-surface layer of yellow or reddish yellow sandy loam which extends to a depth of 10 to 14 inches.

The subsoil is a bright red stiff but brittle clay containing some quartz and considerable mica flakes.

The topography is usually smooth. The type occupies ridges and gentle slopes where erosion has not been severe.

This type represents the condition that probably existed over most of the tract at the time it was cleared and put into cultivation. It is believed that most of the Piedmont was covered by a comparatively deep layer of sandy loam and there were no gullies at the time the land was cleared.

Cecil sandy loam is adapted to a large variety of crops including cotton, corn, and small grain. Cowpeas, soybeans, sorghum, Sudan grass and crimson clover are forage crops that may be grown to advantage. Most vegetables do well, especially Irish potatoes, sweet potatoes and other root crops.

### Cecil Sandy Loam, Mixed Phase

(Symbol C) This represents a modification brought about by the action of sheet erosion on Cecil sandy loam described above. It consists of spots of gray sandy loam, alternating with spots of brown to red clay loam caused by partial removal of the surface soil from the Cecil sandy loam. The subsoil is the same as that described for the sandy loam.

The topography is somewhat more rolling than that of the sandy loam as a rule. Drainage is good.

This is primarily a general crop soil being best suited to cotton, corn, small grain, and forage crops.

Alfalfa can be grown with special preparation and peaches do well as a special crop.

The soil represents a progressive stage of erosion which has not progressed far enough to render the soil entirely unproductive, though the exposure of the subsoil in spots lowers its productiveness to some extent and gives it an uneven appearance. This emphasizes the need of care in the future in the matter of erosion control. Good terraces are needed and the cropping system should be planned to include a maximum to close growing crops. Where use for cultivated crops, a system of strip crops should be arranged.



## Cecil Clay Loam

(Symbol CC) This is commonly known as "red clay land" and consists of a brownish red to red clay loam, 4 to 6 inches deep, underlain by the still brittle red clay typical of the other types of the Cecil series of soils.

The topography varies from gently undulating to rolling, giving good surface drainage. In most areas, this type has resulted from severe sheet erosion which has removed all the surface soil from the original sandy loam. Therefore, Cecil clay loam represents exposure of the subsoil. However, this is still productive though it is heavier to work than the sandy loam and requires more care to prevent erosion and greater attention to soil building. Many acres of badly washed land and gullied areas which have passed beyond the possibility of cultivation occur in conjunction with

this type. These are indications of the final stage of erosion toward which this land is headed unless erosion is checked.

Cecil clay loam is suited to cotton, corn, oats, wheat, and all kinds of forage crops. It is well adapted to alfalfa, and peaches do better on this soil than on the sandy loam.

This soil represents an advanced stage of erosion and erosion is quite active on all areas having any appreciable slope unless great care has been taken to prevent it. Rotations should be used that will provide for the land to be covered with small grains and other close-growing crops a large share of the time. Cultivated crops should be alternated with strips of close-growing crops to slow up sheet erosion. Trees or permanent pasture should be put on the badly eroded areas.

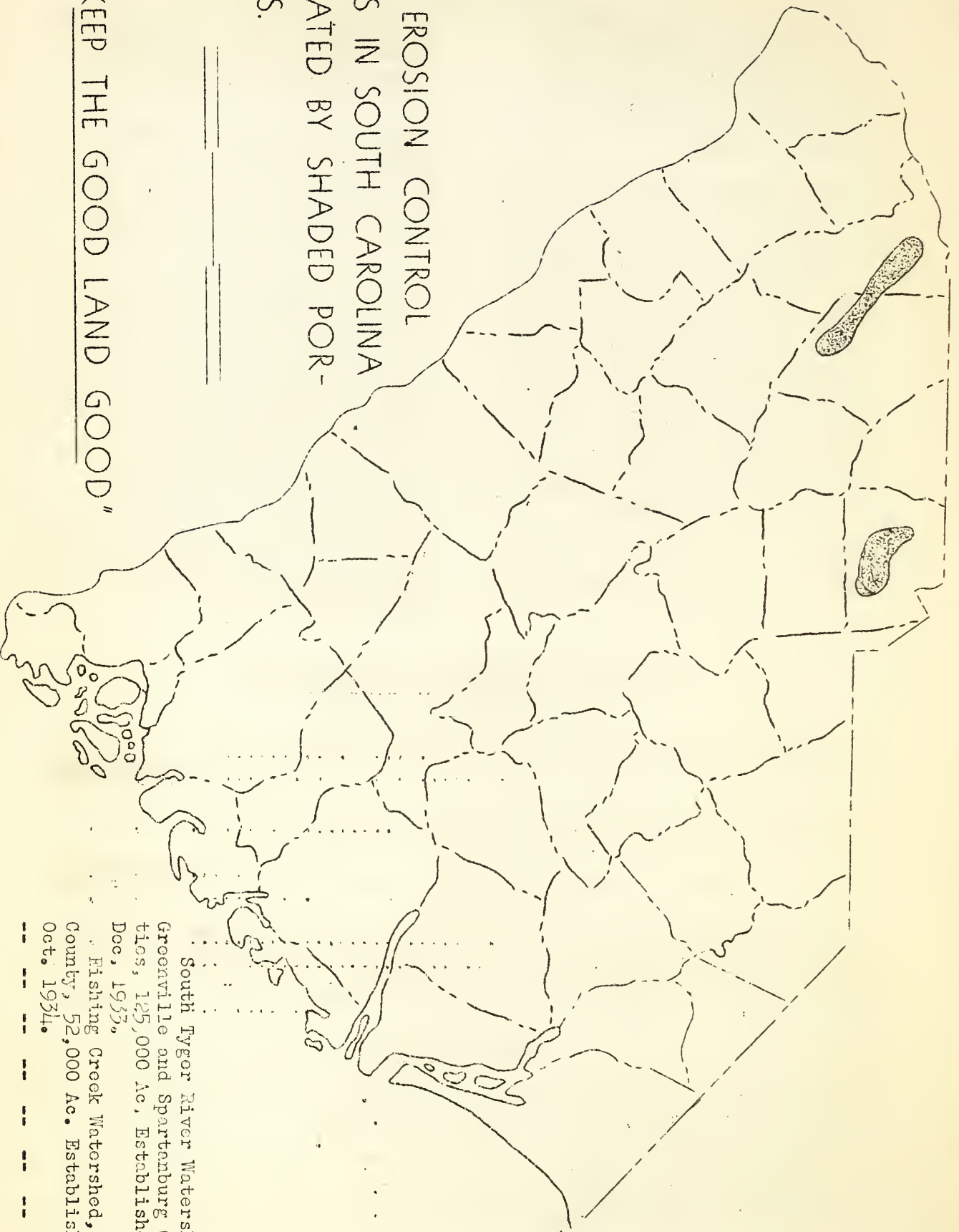
## CONDITION OF EROSION IN SOUTH CAROLINA AS DETERMINED BY SURVEY

Total area of State covered by survey .....	19,627,295
Area with little or no erosion .....	<u>12,895,682</u>
Area which has largely lost the top soil .....	2,361,046
Area which has lost one-fourth to three fourths on top-soil .....	<u>3,651,970</u>
Total area with sheet-erosion problem .....	6,013,016
Total area affected by gullyng .....	5,681,020
Area severely affected .....	600,624
Area essentially destroyed for further tillage: Severely gullied, and practically all of topsoil lost .....	1,051,391

## Alas and Alack

For the lack of a terrace, the soil is lost.  
For the lack of soil, the moisture is lost.  
For the lack of moisture, the fertility is lost.  
For the lack of fertility, the crop is lost.  
For the lack of the crop, the farm is lost.  
For the lack of the farm, the home is lost.  
For the lack of the home, ALL is lost.

SOIL EROSION CONTROL  
AREAS IN SOUTH CAROLINA  
INDICATED BY SHADED POR-  
TIONS.



"KEEP THE GOOD LAND GOOD"

South Tyger River Watershed,  
Greenville and Spartanburg Coun-  
ties, 125,000 Ac. Established,  
Dec. 1933.  
Fishing Creek Watershed, York  
County, 52,000 Ac. Established,  
Oct. 1934.

WHAT THE FARMERS SAY



Dave Cameron

"I constructed two waterways. One was becoming a gully, and with the expenditure of about \$50 I checked it and saved the place.

"I figure in a run of 50 years that waterway will be worth hundreds of dollars to me.

"The land was getting away from me, just slipping through my fingers. I saw a demonstration and I saw the Service was doing something I had always wanted to do, but I didn't know just how to go about it. I have two farms, 700 acres all told, with about 400 in cultivation and all are planted now in something -- for the first time.

"I can remember, 25 years ago we had a good soil, about eight inches. Now on the farm, it is not over one and one-half inches on the average; in many places there is no soil at all. Some of the land had reached the gullying stage, but now I see my way out."

\*\*\*\*\*



Sam Barron

"Yes, I have 250 acres in the Fishing Creek Area. I think the soil erosion movement is fine. It is teaching the farmers how to rotate crops and save the land, and they have a great idea in that scheme of putting and keeping timber on the hillsides.

"Boy, they know how to terrace! We haven't known how to terrace and besides, we haven't had the necessary equipment to throw them up so they will hold. This demonstration will let all the farmers learn how to build terraces and channel drains. A channel which lets the water down without making obstructive gullies is a great idea. Why, for years it has been so that our cattle had to observe a code in fighting to avoid being pushed off in deep gullies and having their backs broken by the fall, and the code was too much for some of them to

live up to. That meant the loss of a good cow, unless it happened close enough to the railroad to enable the manufacture of a damage suit.

"This old idea that pastures should be abandoned and eroded lands is all wrong. We can make dollars in them, and at the same time have the country looking like something. Can the farmer do these things in the time when he is not busy with cotton? I'll say he can.

"The erosionists have set out 10,000 trees for me and they are all growing. The plan of thinning forests and growing timber looks good to me; and, are they teaching us some new things about our land by soil tests? It's worth big money."

UNITED STATES  
DEPARTMENT OF AGRICULTURE  
SOIL EROSION SERVICE  
Rock Hill, S. C.

Penalty for Private  
Use to Avoid Pay-  
ment of Postage  
\$300.00

---

OFFICIAL BUSINESS